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NOTICE OF ALLOWANCE AND FEE(S) DUE

23838 7590 09/29/2008

KENYON & KENYON LLP
1500 K STREET N.W.
SUITE 700
WASHINGTON, DC 20005

EXAMINER

RUTHKOSKY, MARK

ART UNIT

PAPER NUMBER

1795

DATE MAILED: 09/29/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/629,764 07/30/2003

Akim Aoto

10517/180

7701

TITLE OF INVENTION: SEPARATOR FOR FUEL CELL INCLUDING A TERMINAL OF A CELL VOLTAGE MONITOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	12/29/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

23838 7590 09/29/2008
KENYON & KENYON LLP
1500 K STREET N.W.
SUITE 700
WASHINGTON, DC 20005

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,764	07/30/2003	Akira Aoto	10517/180	7701

TITLE OF INVENTION: SEPARATOR FOR FUEL CELL INCLUDING A TERMINAL OF A CELL VOLTAGE MONITOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	12/29/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
RUTHKOSKY, MARK	1795	429-034000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/629,764	07/30/2003	Akira Aoto	10517/180	7701
23838	7590	09/29/2008	EXAMINER	
KENYON & KENYON LLP 1500 K STREET N.W. SUITE 700 WASHINGTON, DC 20005			RUTHKOSKY, MARK	
			ART UNIT	PAPER NUMBER
			1795	
			DATE MAILED: 09/29/2008	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 168 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 168 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

10/629,764

Applicant(s)

AOTO, AKIRA

Examiner

Mark Ruthkosky

Art Unit

1795

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/11/2008.
2. ☒ The allowed claim(s) is/are 1,4,5,9,10 and 12-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Mark Ruthkosky/
Primary Examiner, Art Unit 1795

DETAILED ACTION

Response to Amendment

The amendment of 9/11/2008, filed after the final rejection 6/12/2008, is noted. The amendment places the claims in order for allowance.

Claim Rejections - 35 USC § 103

The rejection of claims 1, 3-10, 12-17 and 19 under 35 U.S.C. 103(a) as being unpatentable over Meacher et al. (US 5,858,569) in view of Hiroshi et al. (JP 11-339,828) OR over Hiroshi et al. (JP 11-339,828) in view of Meacher et al. (US 5,858,569), and further in view of Yoshimura et al. (US 6,291,094) has been overcome by applicant's amendment to the claims.

Allowable Subject Matter

Claims 1, 4, 5, 9, 10, and 12-15 are allowed. Cancelled claims 18 and 20 had been objected to as being dependent upon a rejected base claim, but it was noted in the final rejection that the claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has added the allowable subject matter to the independent claim 1.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or render obvious the claimed invention. The teachings of the prior art have been presented. The prior art does not teach an apparatus comprising a separator for a fuel cell and a terminal of a cell voltage monitor, as claimed, including the

features that first and second grooves are formed in the frame portion of the plate and the first groove is separately formed in parallel with the second groove, wherein one of the positive side metal plate and the negative side metal plate has a groove with a position and configuration corresponding to only the first groove, the other of the positive side metal plate and the negative side metal plate has a groove across the first and second grooves, and the terminal of the cell voltage monitor is brought into contact with the non-coated contact portion of the one of the positive side metal plate and the negative side metal plate. For these reasons, the claims are allowable over the prior art.

Pertinent prior art has been presented. For example, Meacher et al. (US 5,858,569) teaches a separator for a fuel cell comprising a metal plate including a carbon coated gas passage portion and a peripheral foil contact portion in a part other than the gas passage portion, wherein the carbon-coated surface treatment applied to the gas passage portion is different from a surface treatment applied to the contact portion. The untreated frame/stainless steel section is a contact portion other than the gas passage portion and also may serve as an attachment portion. The individual fuel cells are electrically connected in the stack and clamped. A gasket frame portion is noted on the surface of the peripheral foil contact portion. The cells are connected with good electrical contact throughout the stack while insulating individual anode and cathode contacts of the stack.

Meacher et al. (US 5,858,569) does not teach the contact portion being brought into contact with a terminal of a cell voltage monitor attached to the fuel cell or that the anti-corrosion surface treatment on the gas passage portion includes a metal plating and a carbon coat formed on the metal plating, and an anti-corrosion surface treatment on the contact portion is the

metal plating being brought into contact with the terminal of the cell voltage monitor directly. The reference does not teach that the anti-corrosion surface treatment on the gas passage portion includes a metal plating and a carbon coat formed on the metal plating, and an anti-corrosion surface treatment on the contact portion is the metal plating being brought into contact with the terminal of the cell voltage monitor directly.

Further, Hiroshi et al. (JP 11-339, 828) teaches a fuel cell stack with a voltage-measuring terminal attached to the sidewall of the separator plate. The fuel cell separator plates have a protruding terminal integral with the separator for measuring the voltage of each cell in the fuel cell stack. The separator may be graphite, aluminum and stainless steel. The terminal is engaged with a voltage monitor. The attachment portion is attached in the direction wherein a plurality of frames are stacked as taught in figure 1. The references teach gas manifold portions outside of the gas passages. The contact portion is provided on an edge of the separator that extends in a longitudinal direction of a rectangular gas manifold opening. Parallel grooves are formed in the separator.

Hiroshi et al. (JP 11-339,828) does not teach the metal separator plate is coated with a carbon layer in the area of gas flow along the separator plate. The reference does not teach that the anti-corrosion surface treatment on the gas passage portion includes a metal plating and a carbon coat formed on the metal plating, and an anti-corrosion surface treatment on the contact portion is the metal plating being brought into contact with the terminal of the cell voltage monitor directly.

In addition, Yoshimura et al. (US 6,291,094) teaches a fuel cell comprising a grooved metal plate including a first metal coating and a second carbon coating on a gas passage portion

and a contact portion in a part other than the gas passage portion, wherein the surface treatment is applied to the entire gas passage portion. The terminal is arranged so that the positive terminal is arranged on a first end surface of the separator on a cathode side and a negative terminal is arranged on a third end surface of the separator on an anode side. The separator includes a metal such as stainless steel, coated with a protective, conductive layer followed by a coating of carbon. The carbon may be selectively added to the gas passage areas. The frame/stainless steel section is a contact portion other than the gas passage portion and also serves as an attachment portion. The metal plate includes a gas passage area.

The prior art references do not teach an apparatus comprising a separator for a fuel cell and a terminal of a cell voltage monitor, as claimed, including the features that first and second grooves are formed in the frame portion of the plate and the first groove is separately formed in parallel with the second groove, wherein one of the positive side metal plate and the negative side metal plate has a groove with a position and configuration corresponding to only the first groove, the other of the positive side metal plate and the negative side metal plate has a groove across the first and second grooves, and the terminal of the cell voltage monitor is brought into contact with the non-coated contact portion of the one of the positive side metal plate and the negative side metal plate. For these reasons, the claims are allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

/Mark Ruthkosky/

Primary Examiner, Art Unit 1795

9/19/2008